

In the Claims

*A* ( Claim 1 (canceled)

Claim 2 (currently amended)

The process according to Claim 4 32, wherein said carbon dioxide has a variable concentration of dissolved gas in the broth which is controlled to below saturation level.

Claim 3 (currently amended)

The process according to Claim 4 32, wherein the dissolved carbon dioxide gas is removed from the fermenting broth liquid by diffusion across a gas permeable membrane having two sides, said broth flowing in one direction across one side of the membrane and nitrogen gas flowing counter-currently to the broth on the other side of the membrane.

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (currently amended)

The process according to Claim 4 32, wherein the carbon dioxide gas removed by said diffusion is used in downstream processing of a fermentation product.

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

Claim 10 (currently amended)

The process according to Claim 4 32, wherein during startup of the fermentation process a molecular oxygen-containing gas is introduced into the fermenting broth liquid by diffusion.

Claim 11 (canceled)

Claim 12 (canceled)

Claim 13 (canceled)

Claim 14 (currently amended)

The process according to Claim ~~42~~ 33, wherein the dissolved carbon dioxide gas is removed from the fermenting broth by diffusion across a gas permeable membrane having two sides, said broth flowing in one direction across one side of the membrane and nitrogen gas flowing counter-currently to the broth on the other side of the membrane.

A<sup>1</sup>  
Claim 15 (canceled)

Claim 16 (canceled)

Claim 17 (currently amended)

The process according to Claim ~~42~~ 33, wherein the dissolved carbon dioxide gas removed by said diffusion is used in downstream processing of a fermentation product.

Claim 18 (canceled)

Claim 19 (canceled)

Claim 20 (canceled)

Claim 21 (currently amended)

The process according to Claim ~~42~~ 33, wherein during startup of the fermentation process a molecular oxygen-containing gas is introduced into the fermenting broth liquid by diffusion.

Claim 22 (canceled)

Claim 23 (currently amended)

Use of a gas permeable membrane in ~~an anaerobic fermentation~~ a process for brewing beer comprising:

fermenting anaerobically a broth using yeast to convert sugar into water, ethanol and carbon dioxide, said carbon dioxide having a variable concentration in the broth; and

removing directly carbon dioxide dissolved in the fermenting broth by diffusion across the gas permeable membrane for at least part of the process.

to remove dissolved gas generated in a fermenting liquid to reduce the level of carbon dioxide from the broth thereby maintaining the dissolved carbon dioxide concentration to below saturation and controlling foam generation generated by controlling the concentration of the gas in the liquid.

Claim 24 (canceled)

Claim 25 (canceled)

Claim 26 (canceled)

Claim 27 (canceled)

Claim 28 (canceled)

Claim 29 (canceled)

Claim 30 (canceled)

Claim 31 (canceled)

Claim 32 (new)

A process for brewing beer comprising:

fermenting anaerobically a broth using yeast to convert sugar into water, ethanol and carbon dioxide; and removing directly carbon dioxide dissolved in the fermenting broth by diffusion for at least part of the process.

Claim 33 (new)

A process for reducing foam generation during the brewing of beer comprising:

fermenting anaerobically a broth using yeast to convert sugar into water, ethanol and carbon dioxide, said carbon dioxide having a variable concentration in the broth; and

controlling the concentration of carbon dioxide dissolved in the broth to below saturation by removing directly carbon dioxide therefrom by diffusion for at least part of the process.